



Towards sustainable growth: the essential role of public and multilateral development banks in financing the green transition

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Resumen

Los bancos de desarrollo públicos (BDP) y los bancos de desarrollo multilaterales (BDM) tienen un papel importante en la financiación de la transición ecológica. Contribuyen con grandes cantidades de financiación, garantías y financiación combinada. Muchos de ellos han adoptado objetivos explícitos de financiación climática. También se esfuerzan por movilizar recursos del sector privado, ya que la magnitud de los desafíos es demasiado grande para que el sector público los enfrente solo. Ayudan en el desarrollo de nuevos instrumentos financieros (como los bonos verdes). Además, contribuyen a construir la arquitectura financiera, desarrollando el marco global de definiciones y divulgaciones sobre financiación sostenible. También están involucrados en la financiación de tecnologías innovadoras y proporcionan capital de riesgo. Estas actividades no solo están relacionadas con la transición ecológica en sentido estricto, sino también con la competitividad amplia de un país o región, vinculada a la capacidad de producir, exportar y desplegar tecnologías verdes innovadoras.

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Palabras clave: Riesgo climático; Finanzas climáticas; Bancos de desarrollo públicos; Bancos de desarrollo multilaterales; Instituciones financieras internacionales.

Abstract

Public development banks (PDBs) and multilateral development banks (MDBs) have a major role to play in financing the green transition. They contribute to large amounts of financing, guarantees and blended finance. Many of them have adopted explicit climate finance targets. They also endeavor to mobilize private sector resources, as the scale of the challenges is too big for the public sector to be faced alone. They help in developing new financial instruments (like green bonds). They also contribute to building the financial architecture, developing the global framework of sustainable finance definitions and disclosures. And they are involved in financing innovative technologies and provide risk capital. Such activities are not only related to the green transition stricto sensu but also to the broad competitiveness of a country or area, related to the ability to produce, export and deploy innovative green technologies.

Keywords: Climate risk; Climate finance; public development banks; multilateral development banks; international financial institutions.

Código JEL: F64, Q5, Q50, Q56

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1. The challenges of financing the green transition

Public development banks (PDBs) and multilateral development banks (MDBs) have a major role to play in financing the green transition for a number of reasons. The impact of climate change is considered the greatest and widest-ranging market failure ever seen (Stern, 2006) and requires coordinated public intervention among different countries and different players. Public and multilateral development banks satisfy indeed a wide range of specific missions to address market failures (underserved by the private banking sector) and providing climate finance is one of those. At the same time, as public resources will not be enough to satisfy the huge investment needs, PDBs and MDBs endeavor to mobilise private capital to scale up resources. Moreover, the Paris Agreement, aimed to fortify the global response to the threat of climate change, is explicitly dictating to make “financial flows consistent with a pathway towards low greenhouse emissions and climate-resilient development”. In addition, it establishes the global goal on adaptation, which aims to enhance countries’ adaptive capacity, strengthen resilience, and reduce vulnerability to climate change (art. 2.c and art.7.1, UNFCCC (2015).

In summary, PDBs and MDBs, both in most cases public-owned institutions, play a key role in the green transition. Being policy-driven institutions dedicated to promoting pre-defined socioeconomic goals (climate, SME support, education, R&D&I, basic infrastructure, exports promotion, etc.), they are essential on:

- Financing, i.e. providing concessional and non-concessional finance in support of the low carbon transition;
- Mobilising private finance, by sharing the risks with investors or acting as intermediaries in blending finance from donors and public resources;
- Redirecting financial flows towards sustainable investments by creating new markets, developing innovative financial products and supporting governments in reforming the general framework for broader investments.

Investment needs related to climate are massive, especially in the EU, which has ambitious targets (the EU shall reduce emissions to net zero by 2050, and to achieve negative emissions thereafter; European Commission, 2021). Considering only the four largest manufacturing energy-intensive sectors (chemicals, basic metals, non-metallic minerals and paper), the decarbonisation may cost EUR 500 billion overall over the next 15 years, while for the “hardest-to-abate” segments of the transport sector (maritime and aviation) investment needs stand at around EUR 100 billion each year from 2031 to 2050 (Draghi, 2024). These investments are on top of those for the energy sector. Again, for the EU, the European Commission previously estimated the annual green investment gap for the 2030 target to be reached at EUR 477 bn (3% of EU GDP in 2022), bringing the total annual investment needed to EUR 1,241 bn (7.8% of EU GDP in 2022 - European Commission (2023)). Investment needs in the green transition at global level would be by far larger and more complex to estimate.

The mandates of public and multilateral development banks can vary, but climate finance has been for decades among their main focus. There is not a unique description to define the PDBs. They perform development financing on behalf of governments (Colombo and Cuda,

2023). And they are “mission-driven institutions which use financial instruments to execute a public mandate on behalf of their governments” (Xu, Marodon & Ru, 2021). They can focus on specific sectors (infrastructure) or clients (SME development, private sector, public sector, exports’ support, etc.), or facilitate access to finance universally (Nyikos, Kondor, 2022). Development banks may assume a counter-cyclical role and scale up their lending operations to offset private banks’ temporary difficulties in granting credit to the private sector. Among the examples in Europe, Instituto de Crédito Oficial (ICO) in Spain, Cassa Depositi e Prestiti (CDP) in Italy, Bpifrance in France, Banco Português de Fomento in Portugal, Kreditanstalt für Wiederaufbau (KfW) in Germany, or Oesterreichische Kontrollbank Aktiengesellschaft (OeKB) in Austria to mention a few. MDBs, also known as International financial institutions (IFIs), are those established by more than one country and typically have a broader spectrum of action in terms of geographies (i.e. they operate in multiple countries, if not globally) and are backed by the strong credit ratings and support of their shareholders (OECD, 2018). Among the examples, the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD), the World Bank (WB), the Nordic Investment Bank (NIB), the Council of Europe Development Bank (CEB), the African Development Bank (AfDB), the Asian Development Bank (ADB), the Caribbean Development Bank (CDB), the New Development Bank (NDB) or the Asian Infrastructure Investment Bank (AIIB).

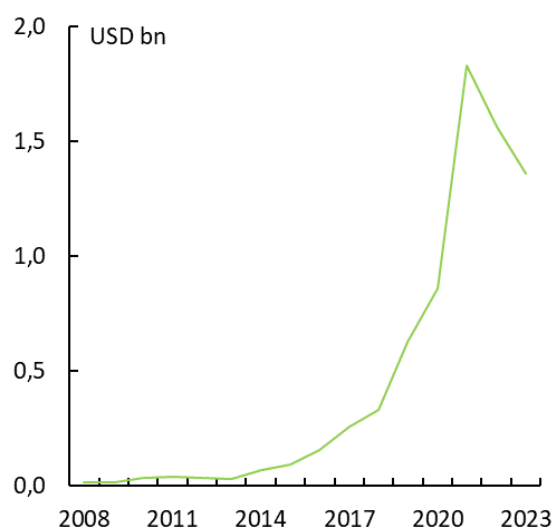
The major MDBs have adopted explicit climate finance targets: for example, for the EIB, more than 50% of its annual lending must be channeled to climate action and environmental sustainability activities by 2025; EBRD will increase green financing to more than 50% of its

annual volumes by 2025; and 35% of the World Bank's financing must have climate co-benefits by 2025. Consequently, the share of climate finance on total MDBs lending moved from below 20% of their portfolio before 2016 to 30% in 2020 and to close to 50% now (Moody's, 2024), corresponding to around USD 100 bn in 2023.

Globally, climate finance has been rapidly expanding in recent years, especially after the Paris Agreement, and MDBs played a key role. Sustainable finance overall (including green, social, and sustainability bonds and loans) increased from USD 90 bn in 2015 to USD 1.3 trillion in 2023 (reaching a peak of USD 1.8 bn in 2021 - Figure 1). MDBs contributed to almost 10% of this amount (Europe and Central Asia for 44%, Americas 15% and 26% Asia Pacific; BNEF, 2024 - Figure 2). They directly provided USD 125 bn for climate action worldwide in 2023 (doubling the amounts of 2019), while they also mobilized private finance for USD 101 bn (European Investment Bank, 2024).

At the global level, climate finance is dominated by mitigation financing, which accounts for about 90% of investment. Over the last decade, about 70% of this mitigation finance has gone towards renewable energy generation, although low-carbon transport is a significant growth area. There is also a relatively even split between public and private sources. However, the growth rate of public funding has been significantly higher over the past ten years, as its starting point was notably lower. Sustainable finance is also necessary for climate adaptation to allow economies to prepare, adapt and increase resilience to the impacts of a changing climate. Increasing investments in climate adaptation and mitigation remains crucial. Equally critical is to achieve a more balanced approach between mitigation and adaptation, ensure enhanced distribution of financial flows across low carbon sectors and geographical regions.

Figure 1. World sustainable debt issuance (USD bn)



Source: Bloomberg and authors' calculations

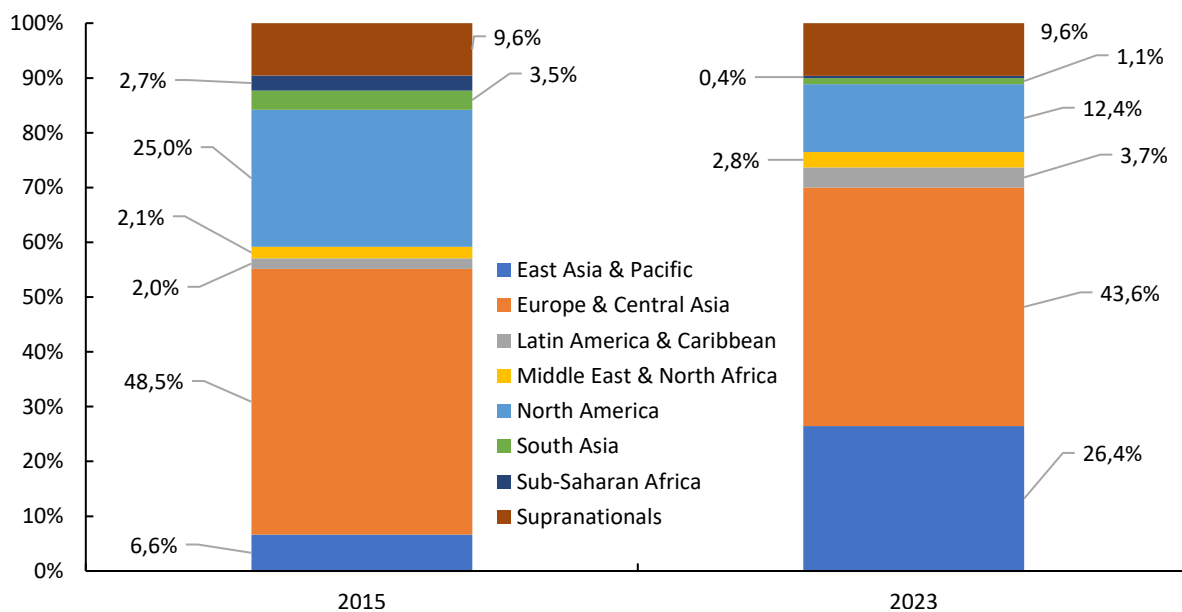
The green transition is also more and more associated to the economic competitiveness of a country or area, especially related to the ability to produce, export and deploy innovative green technologies (solar panels and wind technologies regarding energy production; electric vehicles and batteries regarding transport, for instance), and ensure strategic autonomy of energy and materials. For instance, the European Union is re-thinking its competitive position following two decades of an increasing gap versus USA and China (Arce and Sondermann, 2024; Demertzis et al., 2024; Draghi, 2024; European Investment Bank, 2024; IMF, 2024; McKinsey Global Institute, 2024; Pinkus et al., 2024; Schnabel, 2024). Its readiness towards the green transition is representing a relevant part of its international push for competitiveness. As stated in the Draghi report (Draghi, 2024), “to lower energy prices and capture the industrial opportunities of decarbonisation, Europe needs a joint plan for decarbonisation and competitiveness”. This plan will have to ensure that the decarbonisation can be matched by leadership on the technologies that will supply it. In this sense, public banks and international financial institutions are not only promoting a low-carbon development, but also

stimulating the competitiveness of their respective economies, orientating production towards some of the goods of the future (i.e. low-carbon technologies) and moving away from the goods and services of the past (carbon-intensive technologies, like coal for instance without emissions abatement technologies such as carbon capture, utilisation and storage). Moreover, they have to promote not only the general competitiveness of a country or area (i.e. increasing overall productivity), but also autonomy and security (for instance, EU is developing strategies to promote more autonomy in strategic sectors such as energy, defence, space, pharma and critical materials, via an activist industrial policy).

Promoting investments in certain sectors, public development banks and multilateral development banks are also an instrument for

orientating industrial policies. As policy-driven institutions, PDBs and MDBs can support horizontal industrial policies (they apply to all firms, financing R&D for instance) or vertical industrial policies (targeted government interventions aimed at supporting specific sectors, specific priorities or even specific firms; for instance, green supply chains or just transition). Industrial policies are controversial (“Technocrats picking winners and interfering in markets is a risky business”; IMF, 2024), but there are concrete examples of cases linked to market failures where industrial policy may have a role to play nowadays in Europe (IMF, 2024): supply-chain resilience (for instance for semiconductors), climate change, and strategic public goods (defence-related sectors for instance). Public and multilateral development banks have an active role in financing such activities.

Figure 2. Sustainable debt issuance in percentage of world total by region (%)



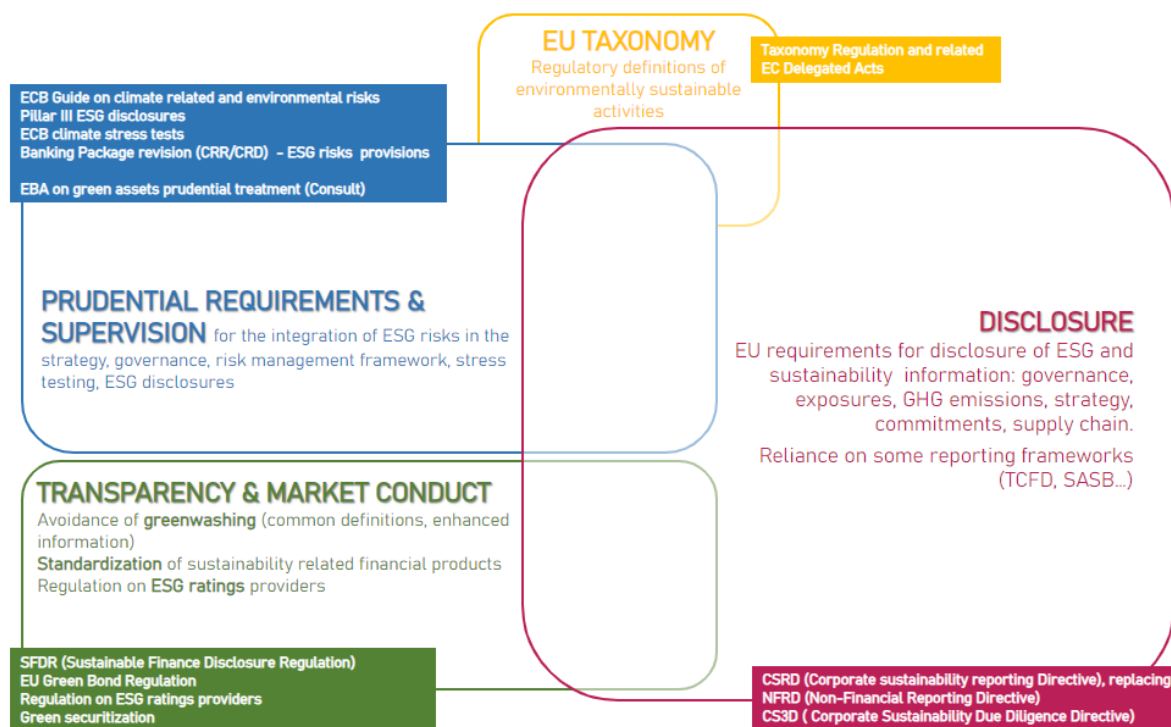
Source: Bloomberg and authors' calculations

2. Building the sustainable finance architecture

One of the areas where PDBs and MDBs have a significant impact is in the development of the global framework of sustainable finance definitions and disclosures. MDBs are pivotal in creating and standardizing definitions and metrics for sustainable finance. They have been decades collaborating on joint reports to track climate finance, which helps in setting benchmarks and credible and robust methodologies for sustainable finance flows (European Investment Bank, 2024). MDBs have proven to be the key catalyst in the evolution of sustainable banking practices and norms (Mendez A., Houghton P., 2020). MDBs often lead initiatives to establish sustainable financial frameworks, working closely with international governmental organizations and civil society. They are seen as key political agents in pioneering sustainable banking practices.

In addition, by adopting best banking practices, some MDBs have committed to apply relevant principles or regulations for the effective management and supervision of climate-related financial risks. These principles aim to enhance banks' risk management and supervisory practices, aligning to the central banks' role managing macro-prudential risks, and integrating climate risks into financial stability assessments. They also define and enforce ESG and climate-related tracking, reporting, and disclosure standards, including the use of sustainable activities taxonomies to avoid greenwashing (EBA, 2023). For example, the European Union is defining its own regulatory framework inspired on the internationally agreed set of measures developed by the Basel Committee on Banking Supervision (BCBS) (Figure 3). The EIB is committed to support the development and conform to best banking practice (BBP) which includes adherence to this framework and any other relevant banking legislation and guidelines.

Figure 3. EU regulatory landscape for sustainable finance



Source: © European Investment Bank

3. Mobilizing private sector investments

In 2015, the landscape of financing for development and for climate action was fundamentally transformed with the global community’s adoption of the Addis Ababa Action Agenda and the Paris Agreement. This comprehensive framework and set of commitments were designed to finance the Sustainable Development Goals (SDGs). Recognizing that the financial requirements to achieve the SDGs far exceed what traditional aid and public resources can provide, MDBs and PDBs pledged to leverage billions of dollars in investment funding, aid and grants. They committed to develop innovative strategies aim to catalyse trillions in financing from diverse sources, including private sector investments.

G20 leaders regularly reinforce the crucial role of MDBs in mobilizing climate finance and development finance. During the New Delhi G20 Summit in September 2023, G20 leaders emphasized the need for “better, bigger, and more effective MDBs”. Additionally, the Finance in Common Summit (FiCS) held in May 2024 in Rio de Janeiro, under Brazil’s G20 presidency, also underscored the vital role of MDBs in promoting sustainable development. They emphasized the need for MDBs to use their financial instruments and platforms to attract private capital and other financial flows, thereby amplifying the impact of public funds. This collaborative effort highlights the evolving role of MDBs not just as financiers, but as key architects in the global sustainable and development finance architecture.

Approximately half of the current climate finance is public and half private, according to Climate

Policy Initiative². One decade ago, private finance represented a higher 60% of the total, but its growth over the last decade has been much slower (4.8%) than public finance (9.1%). Were the current trend to continue, achieving the climate goals would be at serious risk, given the multiple constraints and demands on public finances. While public money can pave the way, the scale of the challenge is too big for the public sector to face alone.

Why is private financing not flowing enough? The green transition entails a dual and almost simultaneous challenge: innovation and scale.

The International Energy Agency (IEA) estimates that around 35% of the emissions reductions needed to reach net zero will be originated by technologies not available today on the market. Private capital is needed to bring them from demo to commercial stage. But private financiers have achieved a prominent role in only a few sectors, such as renewable energy and batteries. Some lessons can be extracted from their successful development: a large initial public sector support (investment grants, supportive regulations such as feed-in-tariffs, etc.) to kickstart a process of technology cost reduction; the role of public development banks at the early stages to absorb technological risks, increasingly combined with private financiers, which gradually must take over; and smart regulations, providing a solid base with regulatory incentives while gradually moving towards market mechanisms for markets to become self-sustaining. The same stepwise partnership between public and private finance needs to happen in all other sectors: hydrogen, shipping, energy, mobility, forestry, biodiversity, adaptation or natural capital.

Public and international development banks can scale up resources via the mobilization of private capital, using various mechanisms. They

participate in syndicated loans, for instance, in which multiple financial institutions jointly finance a project. In this way, it becomes more feasible for private banks to invest in projects that they would otherwise consider as too risky. The multiplier effect (for which each public euro invested is generating the involvement of various euros in private bank credit; Broccolini et al., 2021), is obtained via: lower perceived risks by providing guarantees or taking a senior creditor position (in this way private investors are reassured about the riskiness of their investment); the signal to private investors that the project has been properly scrutinised; and, finally, the provision of technical assistance, improving overall project quality.

Beyond syndicated loans, public banks use various financial instruments such as credit lines, equity investments, mezzanine financing, or guarantees. Guarantees, in particular, lower the risk for private lenders by covering a portion of potential losses, reducing barriers to entry for private investors. Public banks are also early movers in markets with limited private sector involvement, encouraging private investors to step in, demonstrating once again the feasibility of the project and strengthening market confidence. Finally, public banks can have beneficial effects on the regulatory environment, providing policy advice and advocating for regulatory reforms.

4. Developing new financial instruments

MDBs play a crucial role in creating new financial products to scale up financing for sustainable development and climate action, and mobilising private sector investments. To this end, MDBs develop and implement innovative financial

² Global Landscape of Climate Finance: A Decade of Data - CPI (climatepolicyinitiative.org)

instruments like green bonds, social impact bonds, or blended finance structures. By providing guarantees, insurance, and co-financing arrangements, for example, MDBs mobilise private sector capital for projects that align with global policy objectives. By sharing project risks and enhancing returns, the leverage of private sector investment is essential for scaling up investments in infrastructure, renewable energy, and other critical areas.

The European Investment Bank issued the first green bond, known as the Climate Awareness Bond (CAB), on July 5, 2007. This was a pioneering step in the green finance market, marking the world's first green bond issuance. The issuance of the CAB helped to establish a new market for green bonds, encouraging other financial institutions and corporations to follow suit. This innovation has significantly contributed to the growth of sustainable finance, with the global green bond market now exceeding EUR 1.5 trillion in cumulative issuance. Over the years, the EIB has continued to be a leader in the green bond market, issuing a variety of green, social, and sustainability bonds. The EIB has issued nearly EUR 60 billion in Climate and Sustainability Awareness Bonds, making it one of the largest issuers in this sector.

Private sector mobilization is also enhanced by other instruments. For example, partial portfolio guarantees increase the MDBs risk bearing capacity. Back in 2017, the launch of the European Fund for Strategic Investments (EFSI) mobilized over time more than EUR 500bn (of which more than two thirds are private finance), with an average multiplier of 16.08 for each euro of public money invested. EFSI support showed that the decision to finance a project or investment can be accelerated when risk aversion would otherwise have held investors back. The early intervention by the European Investment Bank Group (EIBG) using funding backed by EU funds to support investments in

sustainable development, by leveraging private sector investments through guarantees and blended finance mechanisms, triggered additional resources from other investors.

5. Financing innovators and providing risk capital

Public and multilateral development banks are involved in supporting innovative technologies and providing risk capital. The support for innovation can manifest in several ways, via financing and mobilizing finance related to a certain kind of activities: development and commercialization of new products, processes, and business models; financing of research and development (R&D); financing education, upskilling and training; improving connectivity; or promoting the adoption and diffusion of digital and other emerging technologies across various sectors (including green technologies, for instance).

Fostering innovation, and its transmission to the market and final products, can be expanded only by increasing the availability of risk capital as well (in general, and particularly for green technologies), especially to support start-ups and young firms. Payoffs from research and development tend to take time to materialise, if they materialise at all. This type of activity is therefore frequently financed out of internal resources. Firms that tap external finance to fund research and development are typically large (with a portfolio of products at different stages in their lifecycle) or have physical assets in place that can be used as collateral. Young and small innovative firms need to rely on patient, risk-friendly investors that provide, for example, venture capital or venture debt. Venture capitalists (VC) provide funding to startups that have the potential for rapid growth

but may not yet be profitable. They often operate in industries like IT, technology, biotechnology, and other sectors in which successful commercialisation of innovation requires disruptive investments and scale. These companies are typically perceived as too risky for commercial banks and public and international development banks can play a role in finance and attract other players. VC funds and commercial banks operate with a completely different logic: banks minimize risks (and hence the possible emergence of Non-Performing Loans) while VC funds take substantial risks with the aim to identify few high growth companies (despite most of the other start-ups in their portfolio may result non-profitable).

There are stark differences - and huge gaps - between the US and Europe in terms of availability of risk capital. Innovative European “scale-up” companies face significant financing constraints which become more binding as they grow. VC investments in US companies are six to eight times higher than in the European Union. And Europe raises only 5% of total VC money in the world. But the greentech sector in the European Union is comparable in size to that in the United States. However, greentech companies face even more financing constraints (European Investment Bank, 2024) as they are typically capital-intensive and have higher technological and regulatory risks and longer time-to-market. For these reasons the European Union and national governments intervene to support scale-up companies, and public and international development banks are increasingly involved in financing such activities (EIF, for instance, part of the European Investment Bank Group, is the largest public investor in European VC funds) with a catalytic effect in combining funding and technical expertise.

6. Conclusions

The impact of climate change – the greatest and widest-ranging market failure ever seen (Stern, 2006) – requires coordinated and public intervention, and at the same time mobilization of private capital to scale up resources. To this end, public development banks (PDBs) and multilateral development banks (MDBs) have a special role to play in financing the green transition. First, they contribute to large amounts of financing, often paired with guarantees and blended finance. Many of these institutions adopt explicit climate finance targets.

They are particularly important as they also mobilize private sector resources: public money would not be enough to satisfy the massive investment needs related to the green transition. Moreover, they contribute to developing new financial instruments. This has been the case of green bonds: the European Investment Bank (EIB) issued the first green bond, known as the Climate Awareness Bond (CAB), in 2007, and since then a new market was established.

This innovation has significantly contributed to the growth of sustainable finance, with the global green bond market now exceeding EUR 1.5 trillion in cumulative issuance. Public development banks and multilateral development banks also help in building the financial architecture: they contribute to the development of the global framework of sustainable finance definitions and disclosures. They are involved in financing innovative technologies and provide risk capital, which is particularly lacking in Europe. Their role is set to increase, together with their financing, to face the challenges related to the green and digital transitions and the need to a new growth strategy (related to industrial policies, autonomy, and foreign economic policy) oriented to competitiveness.

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Biography

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Economist from the UAM in Madrid, with Master in Applied Environmental Economics from the University of London, she is working as principal advisor at the European Investment Bank's Climate Office. She joined EIB in 2001 as project economist in network industries, and later at the Bank's Climate Office. From 2018 to 2021 she was detached to the Bank's Washington DC office. Prior to joining the EIB, she worked at Arthur Andersen and at AFI, a Spanish leading consultancy, before joining the telecommunications regulators in Madrid (CMT) and then Dublin (ODTR). She regularly writes on sustainability matters, and occasionally participated as visiting professor in Washington, Paris, Madrid.

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